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EXAMINER

NGUYEN, PHONG H

ART UNIT	PAPER NUMBER
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3724

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

2. Claims 1-8, 10 and 21-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Sarring (3,722,336).

Regarding claim 1, Sarring teaches a transfer apparatus comprising:

a transfer element (1008, 1009, 1010, 1290, 1292 & 1294, Fig. 27) configured to grip the sheet material article 24 and move the sheet material article in a transfer direction onto a moving side table (1490, Fig. 34) of the sheet material article trimmer; and

a driver (1392) configured to move the transfer element at a same speed as the moving side table during a first time period (between 280°-320° of time through cycle, Fig. 38), the speed of the side table and the transfer element varying during the first time period (between 0°-280° of time through cycle, Fig. 38), when the sheet material article is gripped by the transfer element and the side table is moving in the transfer direction.

Regarding claim 2, the drive is configured to move the sheet material article to a predetermined position (between 0°-280° of time through cycle, Fig. 38) relative to the side table before moving the transfer element at the same speed as the side table.

Regarding claim 3, a side clamp (1430) for gripping the sheet material article is best seen in Fig. 35.

Regarding claim 4, a side trimming operation is performed between 280°-320° of time through cycle. See Fig. 38.

Regarding claim 5, the transfer element has the same speed as a front table 978 at 0°-10° of time through cycle when the transfer element and a front clamp 764 grips the sheet material article. See Figs. 4, 5 and 38.

Regarding claim 6, the transfer element has the same speed as a receiving conveyor (1361, 1334 & 1360) to move the sheet material article from the side table to the receiving conveyor. See Fig. 33.

Regarding claims 7 and 8, continuous belts (1010 & 1294) are best seen in Fig. 33.

Regarding claim 10, Sarring teaches an epicycle gear unit 1392 driven by a main trimmer drive (a main gear that drives wheels 1421 and extension shaft 1390) comprising a constant input member (as evidenced by a constant rotational speed of sprocket 1421 to provide a constant speed for a delivery table 1410) and a variable input member for varying the speed of the transfer element.

Regarding claim 21, the transfer element and the side table have the same speed between 280°-320° of time through cycle. See Fig. 38.

Regarding claim 22, a 130° of reciprocating motion of the side table is best seen in Fig. 38.

Regarding claim 23, a curved velocity profile of the transfer element is best seen in Fig. 38.

Regarding claim 24, the transfer element increases speed between 40°-160° of time through cycle and reduces speed right after 160° time through cycle. See Fig. 38.

Regarding claim 25, Sarring teaches a transfer apparatus comprising:

a transfer element (1008, 1009, 1010, 1290, 1292 & 1294, Fig. 27) configured to grip the sheet material article 24 and move the sheet material article in a transfer direction onto a moving side table (1490, Fig. 34) of the sheet material article trimmer; and

a driver (1392) configured to move the transfer element at a same speed as the moving side table during a first time period (between 280°-320° of time through cycle, Fig. 38), the speed of the side table and the transfer element varying during the first time period (between 0°-280° of time through cycle, Fig. 38), when the sheet material article is gripped by the transfer element and the side table is moving in the transfer direction;

the driver including an epicycle gear unit driven by a main trimmer drive (a main gear that drives wheels 1421 and extension shaft 1390) comprising a constant input member (as evidenced by a constant rotational speed of sprocket 1421 to provide a constant speed for a delivery table 1410) and a variable input member for varying the speed of the transfer element.

Claim Rejections - 35 USC § 103

3. Claims 9-11 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sarring (3,722,336)

Regarding claim 9, Sarring teaches the invention substantially as claimed except for the transfer element being a shuttle mechanism. Applicant's admitted prior art, hereinafter AAPA, teaches the art equivalence of the belts and the shuttle mechanism. See paragraph [100]. Therefore, it would have been obvious to one skilled in the art to

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use a shuttle mechanism instead of belts to transfer the sheet material article to the side table since it has been held that substituting equivalents known for the same purpose is obvious to one skilled in the art. See MPEP. 2144.06.

Regarding claim 10, to the degree that it can be argued that the gear unit 1392 in Sarring is not an epicycle gear unit, it would have been obvious to one skilled in the art to replace the gear unit 1392 with an epicycle gear unit as explained below.

The gear unit 1392 in Sarring is used for varying the speed of conveyor belts. AAPA teaches using an epicyclical gear unit for changing speed of conveyor belts being well known in the art. See paragraph [102]. Therefore, Sarring's gear unit 1392 and an epicycle gear unit are art equivalents known for being used to change the speed of the conveyor belts.

Since it has been held that substituting equivalents known for the same purpose is obvious to one skilled in the art, it would have been obvious to one skilled in the art to replace the gear unit 1392 with an epicycle gear unit for varying speed of the conveyor belts. See MPEP. 2144.06.

Regarding claim 11, Sarring teaches using the gear unit 1392 for varying speed of the transfer element. AAPA teaches using a servomotor for varying speed of a transferring element being well known in the art. See paragraph [102]. Therefore, Sarring's gear unit 1392 and a servomotor are art equivalents known for being used to change speed of a transfer element.

Since it has been held that substituting equivalents known for the same purpose is obvious to one skilled in the art, it would have been obvious to one skilled in the art to

replace the gear unit 1392 with a servomotor for varying speed of the transfer element.
See MPEP. 2144.06.

Regarding claim 25, to the degree that it can be argued that the gear unit 1392 in Sarring is not an epicycle gear unit, claim 25 is rejected as follows:

Sarring teaches a transfer apparatus comprising:

a transfer element (1008, 1009, 1010, 1290, 1292 & 1294, Fig. 27) configured to grip the sheet material article 24 and move the sheet material article in a transfer direction onto a moving side table (1490, Fig. 34) of the sheet material article trimmer; and

a driver (1392) configured to move the transfer element at a same speed as the moving side table during a first time period (between 280°-320° of time through cycle, Fig. 38), the speed of the side table and the transfer element varying during the first time period (between 0°-280° of time through cycle, Fig. 38), when the sheet material article is gripped by the transfer element and the side table is moving in the transfer direction.

Sarring teaches using the gear unit 1392 but not an epicycle gear unit for varying the speed of conveyor belts. AAPA teaches using an epicycle gear unit for changing speed of conveyor belts being well known in the art. See paragraph [102]. Therefore, Sarring's gear unit 1392 and an epicycle gear unit are art equivalents known for being used to change the speed of the conveyor belts.

Since it has been held that substituting equivalents known for the same purpose is obvious to one skilled in the art, it would have been obvious to one skilled in the art to replace the gear unit 1392 with an epicycle gear unit for varying speed of the conveyor belts. See MPEP. 2144.06.

Response to Arguments

4. Applicant's arguments filed on 11/23/2007 have been fully considered but they are not persuasive.

The Applicant argues that element 1490 of Fig. 34 is a knife bar but not a moving side table. This argument is not persuasive. Because the Applicant claims only the varying speed of the side table and does not clearly state the book-carrying-function of the side table, element 1490 reads on the limitation of the side table. Element 1490 has flat surface and support a side cutting knife; therefore, element 1490 is considered a side table. Furthermore, element 1490 varies speed. Therefore, element 1490 meets the limitation of the side table.

The Applicant argues that Sarring does not teach an epicycle gear unit. This argument is not persuasive. The Applicant defines an epicycle gear unit in claim 25 comprising two components which are a constant input member and a variable input member for varying the speed of the transfer element. Sarring teaches a gear unit comprising a constant input member (as evidenced by a constant rotational speed of sprocket 1421 to provide a constant speed for a delivery table 1410) and a variable input member (see col. 38, lines 15-35) for varying the speed of the transfer element. Therefore, Sarring's teaching reads on the epicycle gear unit.

The Applicant argues that the shuttle mechanism is not well known in the art. This argument is not persuasive. Because the Applicant states the shuttle mechanism as one of the known transfer elements equivalent to the transferring belt system and does not

present any particular shuttle mechanism of his own to use in his trimming device. The Examiner considers the shuttle mechanism is conventional and well known in the art.

Regarding the Applicant's argument with respect to the epicycle gear unit and the servomotor, because using the epicycle gear unit and the servomotor to vary the speed of the conveyor belt is well known in the art as admitted by the Applicant and by one of ordinary skill in the art, and the Applicant does not present any particular servomotor of his own, the Examiner considers replacing the servomotor with the epicycle gear unit is routine skill in the art.

Regarding the Applicant's argument with respect to the alternative rejection 103 of the epicycle gear unit, because the claim language is broad, there are two interpretations of the epicycle gear unit. The Examiner presents two of them so that the Applicant has a fair chance to amend the claims.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

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advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHONG H. NGUYEN whose telephone number is (571)272-4510. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Timothy V Eley/
Primary Examiner, Art Unit 3724

/P. H. N./
Examiner, Art Unit 3724

March 14, 2008